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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,882	02/01/2007	David E. Vokey	85533-102	8847

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CANADA

EXAMINER

VALONE, THOMAS F

ART UNIT	PAPER NUMBER
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2831

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04/16/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,882	Applicant(s) VOKEY ET AL.	
	Examiner THOMAS F. VALONE	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 13, 15, 16, 19 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12, 13, 15, 16, 19 and 21-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2010 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because the PCT WO 2005/010837 that has been used as the specification has no printed page numbers nor paragraph numbers, making it difficult to find citations within the specification or to make corrections to the specification.

A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

2. The amendment filed 3/30/10 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The terms “connecting

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bridge” and two pairs “9A, 10A” represent new matter since they are found nowhere else in the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “10” has been used to designate both “tape” (Fig. 1) and “probe” (Fig. 5 and amended Fig. 6). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12, 21 and by dependence claims 13, 15, 16, 18-20, 22-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly

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point out and distinctly claim the subject matter which applicant regards as the invention.

The amended claims 12 and 21 explicitly claim "each probe includes at least one rigid elongate conductive element" and therefore, with one element per probe claimed, it is not understood how the "pair of conductive probes" in the amended claims 12 and 21, which are also similarly disclosed as a "dual prong design" being interpreted as a single staple in light of the amendment (3/30/10) to the instant specification (p. 6) and inserted with a "standard construction-stapling tool" (PCT WO 2005/010837 disclosure, p. 7), can perform any useful function if the "first probe...to penetrate the first conductor" and the "second probe of each pair...to penetrate the second conductor of the tape" as claimed, since this precise arrangement will effectively short out the two conductors electrically, by following such instructions explicitly (one rigid element per probe), to one of ordinary skill, *with a standard industrial staple being interpreted as the pair of probes*. It is not clear how each claimed "probes of each pair" can function any differently than as interpreted above unless they follow a different method that has not been claimed nor disclosed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 12, 13, 15, 16, 18-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (GB 2235535), Roseneau (4,259,633) both of record, and Rutkowski (3,733,231) in view of Gott (6,175,310).

Regarding claims 12, 18, 20, 21, 25, 27, 28, Stewart from the same field of endeavor teaches a method of detecting moisture in an absorbent material by providing a tape (3, Fig. 6) formed by a substrate and a first and second spaced apart elongate parallel conductors mounted on top of the substrate (1, Fig. 1) and a layer of permeable mounting adhesive on a bottom surface of the substrate (2, p. 3 and Fig. 1). Stewart also teaches a non-hydroscopic material (non-permeable and permeable insulation 8, p. 3 and Fig. 6) applied to the tape as in claim 27. Stewart further teaches attaching the tape using the adhesive to be "fixed to the structure" (p. 3) so as to mount the two conductors on or adjacent to the surface of the building material (Fig. 2-5) as in claim 12, 28. Stewart also teaches applying a voltage (power source 6, p. 3 and Fig. 5, 8) across the two conductors and monitoring currents so as to detect changes in resistance between the conductors caused by moisture in the material (resistance, p. 3) with the same intended use of a conductive probe (permeable adhesive) as in claims 12, 21, 27.

Stewart does not teach penetrating the first and second conductors of the tape by forcing each respective one of a pair of conductive probes such that each of the conductive probes engages into the absorbent material and is electrically connected to the respective conductor. Stewart does not teach conductive probes that are a plurality

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of pairs of rigid elongate conductive elements of a corrosion resistant material and does not explicitly teach a substrate of dielectric, hydrophobic material.

Rosenau from the same field of endeavor teaches a pair of probes wherein each probe includes one rigid elongate conductive element of a corrosion resistant material (stainless steel pins, col. 2, line 57) and forcing probes longitudinally into the material (parallel to the grain of the wood, col. 2, line 59) at the respective location so as to penetrate though the surface of the material (28, 30, col. 2, line 50-60 and Figure) such that each of the conductive probes engages into the absorbent material and is electrically connected to the respective conductor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a pair of conductive metal probes in the Stewart moisture detector as taught by Rosenau such that each of the conductive probes engages into the absorbent material for the benefit of securely engaging the tape containing each of the first and second conductors to the absorbent material in order to make electrical contact through the conductive probes across the wood for measuring the wood moisture content, as suggested by Rosenau (col. 1, line 45-60).

Stewart as modified by Rosenau (S-R) does not teach conductive probes that are a plurality of pairs of elongate conductive elements penetrating the conductors of the tape with a pair of conductive probes and does not explicitly teach a substrate of dielectric, hydrophobic material.

Rutkowski from an analogous field of endeavor teaches penetrating the coating and conductors of an insulated tape (strip 50, Fig. 5) with a plurality of conductive

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probes (staples, col. 1, line 60-65 and penetrating teeth 58, col. 3, line 20-25 and Fig. 5) to penetrate the conductors in order to make electrical contact with a conductor of the tape. Rutkowski further teaches the conductive tape is covered with a layer of mounting adhesive (52, col. 1, line 50-55 and col. 3, line 15-20) as in claims 12, 21. Rutkowski further teaches forcing staples (18, col. 1, line 60-70 and Fig. 2) longitudinally along respective spaced locations (every four feet, col. 1, line 65) as in claim 20 along the length of any material being secured including timber frame and wooden truss as they penetrate into almost any material as in claims 12, 18, 21, 25. Furthermore, in light of the instant specification, the applicant admits that such a prior art construction staple can be inserted with a “standard construction-stapling tool” (PCT WO 2005/010837 disclosure, p. 6), which also can be expected to perform the same method as claimed, to one of ordinary skill.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have forced Rutkowski's conductive staple probes that are a plurality of pairs of elongate conductive elements penetrating the conductors of the tape with a pair of conductive probes into the S-R conductors covered with a layer of mounting adhesive as taught by Rutkowski for the benefit of serving as a temporary means of maintaining the tape in proper relation to the absorbent material, as suggested by Rutkowski (col. 1, line 60-70).

The teachings of S-R as modified by Rutkowski (S-R-R) are reviewed above.

S-R-R does not explicitly teach dielectric, hydrophobic material for a substrate.

Gott from the same field of endeavor teaches a dielectric, hydrophobic material for a substrate of the leak detection dual conductor system tape (substrate 21, col. 3, line 48-55) that can be plastic or rubber.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the Gott hydrophobic dielectric material for a substrate in the S-R-R method for detecting moisture for the benefit of being flexible and no thicker than 20 mils so as not to impede the flow of small droplets of water, as suggested by Gott (col. 3, line 50-55).

8. Regarding claims 13, 22, Stewart teaches a dielectric, non-hydroscopic material (non-permeable and permeable insulation 8, p. 3 and Fig. 6) secured to the top surface of the substrate and extending over the conductors. However, a shorting hazard is also noted in the Stewart reference (p. 3) with the presence of moisture on top of the water permeable layered tape.

9. Regarding claims 19, 26, Stewart teaches the absorbent material is a moisture permeable element of a building construction (timber framed, p. 1 and Fig. 5).

10. Regarding claims 15, 23, the teachings of S-R-R are reviewed above. S-R-R further teaches the content of the tape is metal foil (Rutkowski, col. 1, line 10-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included coated metal foil tape conductors as taught by Rutkowski in the S-R moisture detector for the benefit of being easily penetrated by staples or penetrating teeth, as suggested by Rutkowski (col. 1, line 60 and col. 3, line 20-25).

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S-R-R does not indicate the width of the tape conductors.

Gott teaches that the width of the conductors is preferably between $\frac{1}{4}$ and 1 inch wide (col. 4, line 10-15), which converts to between 6.5 mm and 25 mm as claimed. Gott further teaches that the conductors are flat metal strips (electroplating, col. 3, line 66 and foil, col. 4, line 1) as in claims 15, 23.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the Gott recommended flat metal strip conductors of at least 6.5 mm in the S-R-R method for detecting moisture for the benefit of ensuring that the detection tape is sufficiently sensitive to small water droplet moisture (col. 4, line 15-20).

11. Regarding claims 16, 24, S-R-R does not indicate the gap spacing distance of the conductors.

Gott teaches the gap spacing between conductors should be between $\frac{1}{4}$ " and 1.5" which converts to between 6.5 mm and 38 mm, which encompasses the claimed 13 mm range as in claims 16, 24.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the Gott recommended flat metal strip conductors spacing of at least 13 mm in the S-R-R moisture detection tape for the benefit of facilitating easier connection to various leak detection devices having different terminal spacings, as suggested by Gott (col. 4, line 23-26).

Response to Arguments

12. Acknowledgement is given for the amendment to the drawings.

Acknowledgement is given for the amendment to the claims which removed the “electrically separated” limitation. As a result, the rejection under 35 USC 112-1st has been withdrawn. Applicant's arguments filed 3/30/10 have been fully considered but they are not persuasive.

13. Regarding the argument that the construction staples which are claimed to be an invention which are called a pair of “conductive probes” are now admitted by the applicant to be prior art “well known” (Remarks, 8/28/09, p. 9) and “components are all known” (Remarks, 3/30/10) prior art, it is not persuasive that the manner in which the staples are forced into the leak detecting tape, which is also in the prior art, is somehow an innovative step, since even the tools to do so are in the prior art and the manner in which they are used. Under the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. Furthermore, when a prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the prior device will inherently perform the claimed process. *In re King*, 231 USPQ 136 (Fed. Cir. 1986) and MPEP § 2112.02.

14. It is noted that the European Patent Office (EPO) review of the PCT application EP 04778218 made of record (1/6/10) also agrees in referring to "a pair of conductive probes penetrating into a material, in order to measure the moisture of that material" with a conclusion (Sheet B) that “This is a known concept (see US4259633) and

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therefore not a single general inventive concept..." Even the claimed use of two conductors for measuring moisture does not change their conclusion that "This feature is even known from the cited prior art US6175310."

15. Regarding the argument concerning probe, staple, nail, pin and prong not being the same, it is noted that such a synonymous definition (admitted by the applicant to also be a "nail or pin", Remarks, 3/30/10, p.14), is not a broad interpretation by any means, and has no evidence to the contrary being claimed. Thus directed by the applicant's own disclosure, admissions and claim terminology, the ordinary skill interpretation also accommodates the argument regarding the boldface and underlined claim terminology "inserted parallel to one another in the two flat conductors" since this geometry is also accomplished when prong or pin is substituted for probe in the claims and longitudinal spaced locations are implemented with pairs of probes (pins or prongs).

16. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "critical point-locations", "each probe can comprise a staple", "inserted parallel to one another in the two flat conductors" and "parallel simultaneous measurement") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). However, it is noted that the applicant admits the "critical locations" simply refer to "window sill", "sheathing" or "floor joists" as the only critical points disclosed (instant disclosure, p. 4) as opposed to

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the argued "location of the staples (probes)" which is argued to be essential (Remarks, 3/30/10, p.18) but has no other antecedent basis in the instant specification.

17. Regarding the argument concerning the new matter of a "bridge portion extending along the conductor" versus "across the two conductors" (Remarks, 3/30/10, p. 12), when examining the claimed limitations the difference between the two conditions cannot be distinguished unambiguously, since each probe is claimed to be "one rigid elongate conductive element" in claims 12, 21 and the applicant is further arguing that the probe "can also be any other conductive element such as a nail or pin" (Remarks, 3/30/10, p. 14) also found in the prior art. However, the contradictions become apparent if such an interpretation is used to try to understand the claimed "respective pair of plurality of pairs of conductive probes" for example, as being anything else than the two pins of a staple, thereby sustaining a rejection under 35 USC 112-2nd in the present Office Action.

18. Concerning the argument that Stewart and Gott do not disclose any probes and that the use of staples would avoid the conductors, to one of ordinary construction skill, this conductor-penetrating feature is found in the Rutkowski staples and Rosenau (4,259,633) who teaches dual electrode pins (28, 30, Figure) connected to conductors (52, Figure) "may be driven into the wood at appropriate distance from one another" (col. 2, line 58) which reads on the argument which the applicant is making concerning probes, providing additional prior art motivation to combine staples and moisture detecting tape.

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19. Regarding the argument that claim 27 claims a hydrophobic substrate and a water pervious top coating which is not found in Stewart, it is noted that actually Stewart teaches "additional permeable insulation 5" (also admitted by the applicant in Remarks, 3/30/30, p. 22) and "permeable adhesive insulation 2" (p. 3) which is not "difficult to understand" as argued but instead clearly reads on the protective layer water pervious limitation of claim 27 to one of ordinary skill, as noted in the existing obviousness rejection in the Office Action. As to the claimed hydrophobic substrate, this is found in the Gott reference who seems to be omitted from the applicant's argument. The prior art reference Gott, also cited in the obviousness rejection in the Office Action, explicitly teaches a substrate formed of "any suitable flexible electrically insulating material, such as plastic, rubber" (col. 3, line 48-49) which are hydrophobic materials, to one of ordinary skill. Therefore, both claimed features are found in prior art references used for the same endeavor. Furthermore, it is noted that the applicant has already claimed and received patent protection for such a "protective layer of non-hygroscopic, water pervious material secured to the top surface of the substrate tape and extending over the two sensing conductors" in claim 1 of patent #7,292,155 drawn to the same inventive subject matter of moisture detection tape.

20. As to the "extension loops" and "points of positional change" which are argued as limiting the claimed water pervious insulation, as well as the argument concerning the admission that the components "are all known" along with arrangement and location (Remarks, 3/30/30, p. 23), the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary

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reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

21. Regarding the overall argument concerning inserting staples, it is not persuasive that the claimed method in which the prior art staples are forced into the leak detecting tape, which is also in the prior art, is somehow an innovative step, since even the staple gun tools to do so and the insulating tape are in the prior art as well as the claimed manner of forcing staples into the conductors of insulated tape and engage the wood beneath is found in the prior art (Rutkowski, col. 1, line 60-65) .

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schenker and Schroeder teach penetrating pins into flat insulated conductors; Fujita teaches detecting moisture in wood with dual electrodes.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS F. VALONE whose telephone number is (571)272-8896. The examiner can normally be reached on Tu-W-Th, 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Thomas F Valone/
Examiner, Art Unit 2831

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